

Claims:

1. A communication apparatus including:
 - a support structure that is fastenable to a safety helmet;
 - a vibration conduction microphone that is carried by the support structure; and
 - a speaker enclosure that is also carried by the support structure, the vibration conduction microphone and the speaker enclosure being positioned so that, when the support structure is fastened to the safety helmet, the vibration conduction microphone and the speaker enclosure come into contact with a rear of a wearer's head, in use.
2. A communication apparatus as claimed in claim 1, in which the support structure is configured to be fastened to a nape strap of the safety helmet.
3. A communication apparatus as claimed in claim 1, in which both the vibration conduction microphone and the speaker enclosure are waterproof.
4. A helmet that includes:
 - a vibration conduction microphone that is positioned on a part of the helmet;
 - and
 - a speaker enclosure that is also positioned on a part of the helmet, the vibration conduction microphone and the speaker enclosure being positioned so that when the helmet is worn, the vibration conduction microphone and the speaker enclosure come into contact with a rear of the wearer's head.
5. A speaker enclosure that includes:
 - a housing for a speaker, the housing defining at least one opening;
 - a resilient diaphragm that is attached to the housing and that is configured to make contact with the head of a person, in use; and
 - a membrane that is arranged on the housing to seal the at least one opening so that the speaker is shielded from water.

6. A speaker enclosure as claimed in claim 5, in which the housing defines first and second openings.
7. A speaker enclosure as claimed in claim 6, in which the resilient diaphragm is arranged on the housing to seal the first opening and the membrane is arranged on the housing to seal the second opening.
8. A speaker enclosure as claimed in claim 6 or claim 7, in which an acoustically transparent cover is positioned on the housing to protect the second opening.
9. A speaker enclosure as claimed in any one of claims 5 to 8, in which a speaker is mounted in the housing and an electrical cable is connected to the speaker to transmit electrical signals to the speaker, the housing defining an aperture for accommodating the electrical cable and a sealant being interposed between the cable and the housing, the sealant being selected to provide strain relief to the electrical cable.
10. A speaker enclosure as claimed in claim 9, in which a mounting means is arranged on the housing, the mounting means being configured to receive a strap, belt or the like.
11. A speaker enclosure as claimed in claim 9 or claim 10, in which a transducer is arranged in the housing adjacent the resilient diaphragm so that the speaker enclosure can be used to pick up vibrations from a wearer as well as to transfer vibrations to the wearer.
12. A vibration conduction microphone that includes:
 - a housing;
 - a transducer that is positioned in the housing; and
 - an acoustic isolator that is also positioned in the housing, the acoustic isolator being disposed about the transducer.

13. A vibration conduction microphone according to claim 12, wherein the acoustic isolator includes a visco-elastic material.
14. A vibration conduction microphone according to claim 13, wherein the acoustic isolator further includes a holder for holding the visco-elastic material.
15. A vibration conduction microphone according to claim 14, wherein the transducer comprises an accelerometer.
16. A vibration conduction microphone according to claim 15, wherein the housing comprises a flexible body configured to receive the accelerometer, acoustic isolator and holder.
17. A helmet mountable communications apparatus, including transducing means consisting of a vibration conduction microphone and/or a speaker enclosure;
wherein, the transducing means is mounted at the rear of the helmet so that in use the transducing means contacts the rear of a wearer's head.
18. A helmet mountable communications apparatus according to claim 17 including both the vibration conduction microphone and the speaker conduction.
19. A helmet mountable communications apparatus according to claim 18 wherein the vibration conduction microphone comprises a vibration conduction microphone according to any one of claims 12 to 16.
20. A helmet mountable communications apparatus according to claim 18 wherein the speaker enclosure comprises a speaker enclosure according to any one of claims 5 to 11.
21. A helmet mountable communications apparatus according to claim 18 wherein the transducing means is mounted to an internal support of the helmet.